

PLATE E.

MAN, MAY, 1938

291



FIG. 1. SIX CH'WAN MIAO WOMEN IN FRONT OF THE CHIEFTAIN'S HOUSE.

FIG. 2. ADULT FEMALE.

FIGS. 3, 4. ADULT MALES. NOTE THE RELATIVE ABSENCE OF THE EYEFOLD.

142



FIG. 2.



FIG. 3.



FIG. 4.

ABORIGINAL CH'WAN MIAO OF SZECHWAN PROVINCE, WEST CHINA.

[facing p. 65]

MAN

A MONTHLY RECORD OF ANTHROPOLOGICAL SCIENCE

PUBLISHED UNDER THE DIRECTION OF THE
ROYAL ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND

XXXVIII, 66-67

MAY, 1938

ORIGINAL ARTICLES.

Blood Groups: China

With Plate E.

Yang: Beh: Morse

BLOOD GROUPS OF THE ABORIGINAL CH'WAN MIAO OF SZECHWAN PROVINCE, WEST CHINA. By Stephen C. H. Yang, Y. T. Beh, M.D., and Professor W. R. Morse, M.D., West China University College of Medicine and Dentistry, Chengtu. With Plate E.

121/ 66 This paper presents data on the blood groups of an aboriginal ethnic group called the Ch'wan Miao. There is included in this report some previously unpublished data on the blood groups of the Chinese of the province of Szechwan, practically all of whom were inhabitants of the Chengtu Plain.

Introduction.—In pursuance of a plan to make physical anthropological measurements and observations¹ on the Chinese and aboriginal tribes of Szechwan Province, one of the authors (M), with some help from Chinese medical doctors and students who were trained by him for anthropological work, have examined some 1,746 Chinese and 1,304 aboriginal tribesmen.

The aboriginal ethnic groups examined were mainly Tibetans, Chiang, Gia or Chia Rong, Hai or Shi Fan, Bo Lo Tsi, Noso (Lolo) Black Bones and White Bones, Ta Hwa Miao, Ch'wan Miao and Chung Chia. The Chinese came from quite widely separated areas of the Chengtu Plain and the aborigines from the highlands and mountains to the north, west and south of that Plain.

The statistical analysis of these measurements is now being worked out.

There were over 70 physical anthropological measurements and observations taken on individuals of nearly all of these groups. Most of those examined were adult males, although several hundred adolescent male and female Chinese were included. Sixty of the Chinese were dissecting-room subjects, and their bones, except the skull, were preserved. Photographs were taken of many individuals.

These data have been gathered over a period of some fifteen years, during which time W. R. Morse has organized and made eleven expeditions into different sections of the province wholly or partially occupied by the aborigines. Roughly speaking, this territory is included within Lat. 27° 30' N. to 32° 30' N.; Long. 102° E. to 104° E., or from Songpan (Szechwan) in the north; Chao Tung (Yunnan) in the south; Yachow or Yasn (Szechwan) in the east; and Tatsienlu or Kangting (Shikang) in the west. The Ch'wan Miao occupy an area near Lat. 27° 30' N.; Long. 140° E.

The data accumulated include blood-pressure observations on the Noso (Lolo), Ta Hwa Miao and Ch'wan Miao². Blood-pressure and blood-grouping, colour-blindness, etc., are to be observed on the Tibetans, Chiang, Gia Rong and Shi Fan, by an expedition, almost entirely for that purpose, during the months of July and August, 1937.

In correspondence with Professor R. Ruggles Gates of King's College, University of London, during 1935-36, Dr. Gates raised the question of blood grouping of the Tibetans and requested Dr. Morse to obtain those data. Owing to the acute activity of the Communists in and about

1 A schedule of these measurements and observations is now in press, published by W. R. Morse, as a supplement to Jour. W. China Border Research Society, VIII.

2 'Blood Pressure Amongst Aboriginal Ethnic Groups of Szechwan Province, West China,' W. R. Morse, Y. T. Beh, *The Lancet*, Vol. 332, p. 968, 1937.

[P. 65]

121 the areas occupied by the Tibetans whom we
114 would have examined, it was considered imprac-
ticable to attempt to secure the data during the
summer of 1936. However, an expedition was
made into a less active bandit-centre, viz., the
Ch'wan Miao, and these blood-grouping data
form the basis of this report. Dr. Morse is there-
fore deeply indebted to Dr. Gates for influencing
him to secure these interesting and important
anthropological data of blood-grouping.

635 *Brief Historical and Geographical Notes.*—
Szechwan Province until recent years included
the present province of Shikang and part of the
province of Chin Hai; it is, however, still as large
as Sweden and remains the largest, most populous,
and most prolific in natural resources, of the
provinces of China. Owing to the above factors,
besides its isolation and relatively long periods of
peace as compared with the rest of China, the
province has been a magnet for ethnic groups for
probably more than 4,000 years. It is an ancient
centre of anthropological significance.³ Up to
and after the time of Christ the province was
occupied by Pre-Chinese. The present aboriginal
population may approximate 2,000,000 tribe
folk, who by the pressure of the Chinese have been
relegated to the fastnesses of the highlands and
mountains of the province. One group (Noso)
remains in great part independent of Chinese
control. The main groups of aborigines were
mentioned above.

101 There are several Miao tribes. The Ch'wan
161 Miao probably number about 100,000, and their
167 place of residence is in Southern Szechwan and
Northern Kweichow. They are under the political
control of the Chinese. All of the Miao tribes are
presumably the modern remnants of the San
Miao³ whose original habitat, roughly speaking,
was in the Lower Yangtze River Basin, being
approximately the territory surrounding the
Tung Ting Lake. They have been in their
present location 2,000 or more years. A part of
the San Miao were expelled to N. W. Kansuh,
according to Ancient Chinese records; this, if
true, means a probable or possible ancient racial
mixture with the Chiang, Noso, Liao and other
tribes.³

563 The Chinese population of Szechwan is not
175 autochthonous, and is heterogeneous. Ancient

³ W. R. Morse: *Ancient Historical Ethnic Groups of
Szechwan Province*, 'Journ. W. China Border Research
Society,' VIII.

563
 175

Szechwan was occupied by the Pre-Chinese aborigines called the Shu and Pa.³ These were highly civilized by 1200 B.C. and had temples, schools, irrigation, etc. The Chinese entered the territory in small numbers about 200 B.C. From 250 A.D. they came in increasing numbers, but were not the main leading and controlling body until the sixteenth century. In 1440 a Chinese tyrant of exceeding cruelty massacred the majority of the population. The province, being such a rich prize, was soon re-populated by the Chinese from the other provinces.

125

Method Employed in Blood-Grouping.—Drops of blood were secured by pricking the lobe of the ear or the finger. This blood was placed in 5 c.c. of normal saline, and well shaken. A drop of standard serum from Group II and Group III was placed on separate marked cover slips. Using a small pipette, one drop of blood-suspension was added to each of the standard sera. The entire preparation was then well mixed and mounted on hollow ground slides and ringed with vaseline. After standing at room temperature for half an hour the preparation was examined by the low power objective, and the presence or absence of clumping was observed.

The sera employed were obtained from the Department of Pathology of West China Union University. All the sera were used up in the field during the examinations. The results are shown in the Table below:—

143

	O	A	B	AB	Total
Chwan Miao	74	23	80	28	205
per cent.	36.1	11.2	39.0	13.7	
Szechwanese	487	375	280	141	1,283
per cent.	37.7	29.0	22.4	10.9	

608

Sincere gratitude and deep appreciation is extended to Professor R. Ruggles Gates for the inspiration given us in anthropological study. We gratefully acknowledge the assistance and help—re sera and apparatus—given us by Drs. Lenox, Williams and Cho, of the Department of Pathology. Our thanks are due to Dr. Agnew for taking the photographs; his diastolic and dental studies are to be published shortly. The blood grouping was done chiefly by Mr. S. C. H. Yang, who was assisted in part by Dr. Beh. The anthropological measurements, which have now been analyzed statistically, were done by Drs. Morse and Beh, assisted by Mr. Liao as recorder.

³ Of these 1,282 Chinese, 1,000 were collected and/or observed by Dr. B. G. Lo and 282 by S. C. H. Yang.

[P. 666]

Some Ch'wan Miao Characteristics.—The Ch'wan Miao are a very isolated, segregated, financially poor group of people almost certainly with no European contacts. They live in the mountains at an elevation of about 3,000 feet. They are mainly an agricultural people, although they are also pastoral and some are hunters. They travel entirely on foot. Their crops are mainly maize and rice. They eat very little meat (mostly mutton) and few vegetables; their chief diet is maize and/or rice. 105

The Ch'wan Miao have been permeated very considerably by the culture of the Chinese and the grade of that culture is not low. Given equal advantages the Miao are as intellectual as the Chinese. Some students, under great handicaps, have persevered and graduated from our University. 177

They have a distinct unwritten language, which differs markedly from the Chinese. Many of the males are bilingual. Their folklore, songs and music are distinct from those of the Chinese. They have a peculiar bamboo wind-instrument; it consists of a body of a bamboo tube 6-8 inches long by 3 inches in diameter. To the centre of 197 534

[P. 67a]

this goes a hollow bamboo tube 2-3 feet long 534
through which they blow; through the body go,
at right angles to this blowing tube, 6 bamboo
tubes $\frac{1}{2}$ -inch in diameter perforated by several
holes. When played it sounds very much like
Scot bagpipes. When they play it they dance. [533]
Their singing is not as falsetto as the Chinese.
The clothes and hats of the women are often
beautifully embroidered. Some men also wear
embroidered clothes, but most of their (men's)
clothing is like the Chinese. Neolithic stone
implements were found in considerable
numbers. 172

Conclusions.—The report of the blood-groups
of 205 Ch'wan Miao (157 males and 48 females),
an aboriginal type of Szechwan province, West
China, is submitted. There is also a report made
of 1,292 Chinese of that province. The Ch'wan
Miao examined were adults, their blood-pressure
was recorded,² photographs were taken and a
complete physical anthropological examination
was made. 143

The blood-groups of the Ch'wan are very low
in A and high in B, as compared with the
Szechwanese.

[P. 676]